

## FAUNA OF SMALL BODIES OF WATER.

E. von Daday (*Zoologica* 1910), in a report on the microfauna of German East Africa, makes the point that small basins, temporary pools, marshes, and the like, are actually richer and more varied in their fauna than are the larger lakes; and that the appearance is not merely a matter of the concentration of a similar fauna into a smaller compass.

## EFFECTS OF CASTRATION ON THE GROWTH OF SPECIAL TISSUES.

Geddes (*Proc. R. Soc. Edin.*, 1910) shows that the removal of testes causes a more rapid growth and division of cells in the epiphyseal cartilages. On the contrary there is an arrest of cell-development in the penis, scrotum, and prostate glands.

Similarly Tschirwinsky finds that removal of testes is accompanied by a lengthening of the long bones in rams, and produces other changes in weight, size, and so forth, which are not uniformly distributed, but localized in certain organs and dimensions. It would thus seem that the presence of testicular products in the blood normally retards the growth of some types of body cells and serves as a definite stimulus to that of others, after the manner of the hormones.

## PERIODICITY IN SPIROGYRA.

Danforth (*Rept. Mo. Bot. Gard.*, 1910) starting with a consideration of the rhythmical production of sexual bodies in *Dictyota*, related in period to the tides, reports an undertaking to discover what may be the stimuli to conjugation in *Spirogyra*. As is well known, some species at least of *Spirogyra* enter the conjugating stage as the season gets well advanced and after an extended period of vegetative growth. It has been a mooted question whether the period is controlled internally or is due to one or more external factors. Danforth used several species of *Spirogyra*, and repeated Benecke's experiments, but on the whole fails to get experimental evidence of the factors. Benecke thought that solutions with diminished amounts of ammonium salts produced the sexual stages. He suggested that